M07: TDAR SRBC: Spleen AFC

Study Number: I07062 DTTID: 108-006-005-000-0 Study Type: Immune screening

Species/Strain: Rat/Sprague Dawley

Test Compound: 1020 Long Multiwalled Carbon Nanotubes

Date: 29 Aug 2024

Time: 3:02:53 PM

CAS Number: L-MWNT-1020

DTXSID: DTXSID601356181

Females: SRBC

	Treatment Groups				
	0 mg/m^3	$0.06~\mathrm{mg/m^3}$	$0.2~\mathrm{mg/m^3}$	$0.6~\mathrm{mg/m^3}$	15 mg/kg CPS
Spleen Weight (g)	$0.614 \pm 0.023[12]$	$0.571 \pm 0.017[12]$	$0.519 \pm 0.041[12]$	$0.632 \pm 0.063[12]$	$0.348 \pm 0.011[10]$ **
Spleen Cells $(x10^6)$	$393.10 \pm 11.64[12]$	$386.75 \pm 27.76[12]$	$431.25 \pm 20.88[12]$	$422.10 \pm 20.62[12]$	$109.44 \pm 6.55[10]$ **
$AFC/10^6$ Spleen Cells	$1485.7 \pm 208.1[12]$	$1057.2 \pm 135.0[12]$	$786.1 \pm 109.3[12]^*$	$1182.2 \pm 158.9[12]$	$655.6 \pm 75.6[10]$ **
$AFC/Spleen (x10^2)$	$6000.0 \pm 960.0[12]$	$4103.8\pm565.5[12]$	$3481.3 \pm 527.0[12]$	$5026.3 \pm 748.2[12]$	$681.0 \pm 54.8[10]$ **

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LEGEND

Data are displayed as mean \pm SEM (N) unless otherwise noted.

Statistical analysis was performed by Jonckheere (trend) and then a pairwise test. Williams/Dunnett pairwise tests are used for organ weights, Shirley/Dunn pairwise tests are used for all other endpoints. The positive control group (15 mg/kg CPS) was excluded from the trend test.

Statistical analysis for the positive control group (15 mg/kg CPS) compared to the vehicle control group was performed using a t-test for organ weights and a Wilcoxon rank sum test for all other endpoints.

Statistical significance for the control group indicates a significant trend test.

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group.

- * Statistically significant at $P \le 0.05$
- ** Statistically significant at P < 0.01

TDAR = T-Dependent Antibody Response; SRBC = Sheep Red Blood Cells; AFC = Antibody-Forming Cells

SEM = Standard Error of the Mean

SD = Study Day

CPS = Cyclophosphamide

Females from the vehicle control and treatment groups were removed on SD 43.

** END OF REPORT **